1	BAKER BOTTS L.L.P.	.
2	Wayne O. Stacy (<i>pro hac vice</i> to be filed wayne.stacy@bakerbotts.com	.)
3	2001 Ross Avenue Dallas, TX 75201	
4	Telephone: 214.953.6678 Facsimile: 214.661.4678	
5	Sarah J. Guske (SBN 232467)	
6	sarah.guske@bakerbotts.com 101 California St., Suite 3070	
7	San Francisco, CA 94111 Telephone: 415.291.6200	
8	Facsimile: 415.291.6300	
9	J.B. Schiller (SBN 298747) jay.schiller@bakerbotts.com	
10	1001 Page Mill Road, Building One, Suite 200	
11	Palo Alto, CA 94304 Telephone: 650.739.7500	
12	Facsimile: 650.739.7600	
13	Attorneys for Plaintiff	
14	TWILIO INC.	
15	UNITED ST	ATES DISTRICT COURT
16	NORTHERN D	DISTRICT OF CALIFORNIA
17	TWILLO DIC	Case No
18	TWILIO INC.,	COMPLAINT FOR PATENT
19	Plaintiff, vs.	INFRINGEMENT
20	TELESIGN CORPORATION,	JURY TRIAL DEMANDED
21	Defendant.	
22		
23		
24		
25		
26		
27		
28		
	COMPLAINT FO	OD DATENT INEDINGEMENT

1
_
2
_

4 5

7

6

8 9

10 11

12

13 14

15

16 17

18

19

20 21

22 23

24

28

25 26 27

1. Plaintiff Twilio Inc. ("Twilio" or "Plaintiff"), files this Complaint against Defendant TeleSign Corporation ("TeleSign" or "Defendant"), and allege as follows:

Introduction to Twilio

- 2. Twilio is a Delaware corporation with its principal place of business at 375 Beale Street, 3rd Floor, San Francisco, California 94105.
- 3. Twilio is a cloud communications company that enables developers to build and manage applications without the complexity of creating and maintaining the underlying structure.
 - 4. Over 1,000,000 developer accounts have registered with Twilio's platform.
- 5. Twilio's approach consists of at least a Programmable Communications Cloud which enables developers to embed voice, messaging, video, and authentication capabilities into developers applications via Twilio's Application Programming Interfaces ("API").
- 6. Twilio offers at least 18 different messaging, voice, and communication products to its customers.
 - 7. Twilio invests substantial resources in its research and development.
 - 8. Twilio employs over 624 employees.
- 9. The vast majority of Twilio's employees are located in the San Francisco Bay area.
- 10. Twilio's research and development organization consists of at least 326 employees, the vast majority of which are located in the San Francisco Bay area.
- 11. Twilio has been issued over 47 United States patents, has 45 pending patent applications, and 10 pending provisional applications.
- 12. In additional to its U.S. patents, Twilio also have five issued patents and nine pending applications in foreign jurisdictions.
- Twilio's technical development of its products and research are primarily based 13. in the San Francisco Bay area.
- 14. The inventors of Twilio's patents are primarily located in the San Francisco Bay area.

1 **Introduction to Defendant** 15. Defendant is a California corporation with its principal place of business in 2 Marina Del Rey, California. 3 16. Defendant has a primary office in Sunnyvale, California. 4 17. Defendant opened its San Francisco Bay area office to sell to its customers and 5 6 clients based in the area. 7 18. Defendant has many customers in the San Francisco Bay area. 19. Defendant attempts to sell its infringing products from its Sunnyvale office. 8 9 20. Defendant was a customer of Twilio. 21. As a customer of Twilio, Defendant used services of Twilio. 10 22. Defendant gained access to the details of Twilio's products and their operation. 11 23. Defendant gained access to Twilio's information, such as Twilio's APIs. 12 24. Stacy Stubblefield, the Co-Founder and Vice President of Product Strategy for 13 14 Defendant had a private Twilio account. 25. Stacy Stubblefield gained knowledge of Twilio's products. 15 16 26. Defendant's engineers learned of Twilio's technology when Defendant was a customer of Twilio. 17 27. Defendant used the information it learned about Twilio products to develop its 18 19 own products to compete with Twilio. 20 28. Defendant knew that Twilio filed patent applications and had obtained patents. 21 The evidence tending to support this allegation will likely have evidentiary support after a 22 reasonable opportunity for further investigation or discovery. 23 29. Defendant views Twilio as a competitor. 30. Defendant used the information it learned about Twilio to enhance its sales. 24 25 31. Using its infringing products, Defendant attempts to take sales from Twilio. 26 32. Defendant has inflicted harm on Twilio. 33. Defendant offers eight different products: Score, Phone ID, Voice Verify, SMS 27 28 Verify, Push Verify, Auto Verify, Smart Verify, and Behavior ID.

2
3
4
5
6
7
8
9
10
11
12
13
14
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
16
17
18
19
20
21
22
23
24

26

27

28

1

(https://telesign.com/products/

34. Seven of these eight products infringe Twilio's patents.

Overview of Infringement

- 35. Of Twilio's 47 issued patents, Twilio is currently asserting seven patents against Defendant: United States Patent No. 8,306,021 ("the '021 Patent") (attached as Exhibit A), United States Patent No. 8,837,465 ("the '465 Patent") (attached as Exhibit B), United States Patent No. 8,755,376 ("the '376 Patent") (attached as Exhibit C), United States Patent No. 8,738,051 ("the '051 Patent") (attached as Exhibit D), United States Patent No. 8,737,962 ("the '962 Patent") (attached as Exhibit E), United States Patent No. 9,270,833 ("the '833 Patent") (attached as Exhibit F), United States Patent No. 9,226,217 ("the '217 Patent") (attached as Exhibit G) (collectively, the "Asserted Patents").
 - 36. The Asserted Patents fall within four patent families:
 - The Platform Family (the '021 Patent, '465 Patent, and '376 Patent)
 - The Platform Family is generally, but not exclusively, directed towards the concept of initiating and controlling a voice, push, or SMS message based on a REST API request.
 - The Score Family (the '692 Patent and the '833 Patent)
 - The Score Family is generally, but not exclusively, directed towards detecting fraudulent account activity.
 - The Path Selection Family (the '217 Patent)
 - The Path Selection Family is generally, but not exclusively, directed towards the selection of a communication provider for transmitting messages.
 - The Delivery Receipts Family (the '051 Patent)
 - The Delivery Receipts Family is generally, but not exclusively, directed towards the selection of the best routing carrier for transmitting messages.
 - 37. Defendant advertises eight different products: Score, Phone ID, Voice Verify,

1	SMS	Verify	, Push	Verify,	Auto	Verify,	Smart	Verify,	and	Behavior	ID.
2	(https://	//telesig	n.com/pro	ducts/).							
3		38.	Seven of	Defendan	t's eight	products	infringe t	he Assert	ed Pate	ents and are	built
4	on Tw	ilio's te	chnology.								
5		39.	Each of D	efendant's	s seven i	nfringing	products i	nfringe m	ultiple	Twilio pate	nts.
6		40.	Defendan	t's Smart	Verify p	roduct inf	ringes the	'051 Pate	ent, the	'021 Paten	t, and
7	the '21	7 Paten	t.								
8		41.	Defendan	t's Auto V	erify pro	oduct infri	nges the '	051 Paten	t and th	ne '021 Pate	nt.
9		42.	Defendan	t's SMS	Verify 1	product in	fringes th	ne '051 F	atent,	the '021 P	atent,
10	the '37	6 Paten	t, and the	217 Paten	t.						
11		43.	Defendan	t's Voice	Verify	product in	nfringes t	he '051 I	Patent,	the '465 P	atent,
12	the '376 Patent, and the '217 Patent.										
13		44.	Defendan	t's Push V	erify pro	oduct infri	nges the '	051 Paten	t and th	ne '021 Pate	nt.
14		45.	Defendan	t's Score	and Pho	ne ID pro	ducts infr	inge the '	833 Pa	tent and the	962
15	Patent.										
16		46.	Defendan	t sells and	offers t	o sell thes	e infringi	ng produc	ets to co	ompanies lo	cated
17	in the	San Fra	ncisco Bay	area and	througho	out the Uni	ited States	S.			
18		47.	Defendan	t could no	t effecti	ively comp	pete agair	nst Twilio	withou	it the techn	ology
19	covere	d by the	Asserted	Patents.							
20					Natu	re of the A	Action				
21		48.	This is a	civil action	for the	infringem	ent of the	Asserted	Patents	s under the p	patent
22	laws o	f the Ur	ited States	s, 35 U.S.C	C. § 1, et	seq.					
23		49.	This action	on involv	es Defe	ndant's m	anufactur	e, use, sa	ale, off	fer for sale	, and
24	import	ation ir	nto the Ur	nited State	es of in	fringing p	roducts, 1	methods,	process	ses, services	s and
25	system	ıs that a	re primaril	y used or	primaril	y adapted	for, but no	ot exclusiv	vely, th	e transmissi	ion of
26	messag	ges.									

50.

27

28

Verify, Auto Verify, SMS Verify, Voice Verify, Push Verify, Score, and Phone ID

For example, but without limitation, such products include Defendant's Smart

(https://telesign.com/products/).

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

51. Defendant has made extensive use of Twilio's patented technologies, including each of the Asserted Patents.

Jurisdiction and Venue

- 52. This Court has original jurisdiction over the subject matter of this Complaint under 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, including 35 U.S.C. §§ 271, et seq.
- 53. This Court has personal jurisdiction over Defendant because Defendant has committed acts of patent infringement and contributed to or induced acts of patent infringement by others in the State of California and in this District.
- 54. Defendant is a California corporation and maintains an office in the San Francisco Bay area.
- 55. Defendant has established sufficient minimum contacts with this District such that it should reasonably and fairly anticipate being called into court in this District and has purposefully directed activities at residents of the state and this District.
- 56. Venue in this district is proper under 28 U.S.C. §§ 1400(b) and 1391(b) and (c), because Defendant is subject to personal jurisdiction in this district and has committed acts of infringement in this district.

Willful Infringement

- 57. Defendant's infringement of the Asserted Patents is willful.
- 58. Defendant became aware of the Asserted Patents as part of its analysis of Twilio's products, for example, during its diligence in filing suit against Twilio. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 59. Defendant knew of Twilio's patents and products. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
 - 60. Defendant's engineers had access to Twilio when Defendant was a customer of

٠.	
Ч.	
بَ	
$\boldsymbol{\vdash}$	
ROLLS	
BAKEF	
_	

	n • 1	• •
Ė	W1	110

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

- 61. Defendant's engineers were able to study Twilio's source code and design of Twilio's products.
 - 62. Defendant's Stacy Stubblefield had a Twilio account.
 - 63. Stacy Stubblefield's private account was created in September of 2009.
- 64. Stacy Stubblefield is the co-founder and vice president of product strategy at TeleSign.
 - 65. Stacy Stubblefield gained access to Twilio's products.
- 66. Stacy Stubblefield used the information she learned from her Twilio account to develop products to compete with Twilio. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 67. Defendant designed competing products after learning of Twilio's products. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
 - 68. Defendant's products closely match at least some of Twilio's products.
- 69. For example, Defendant's Score product closely matches the '833 Patent and the '962 Patent.
- 70. For example, Defendant's two-factor authentication service closely matches Twilio's two-factor authentication technology.
- 71. Defendant's infringement of the Asserted Patents has been deliberate, flagrant, wanton, and constitutes willful infringement. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.

Count I (Infringement of U.S. Patent 8,737,962)

- Twilio incorporates by reference and realleges all the foregoing paragraphs of 72. this Complaint as if fully set forth herein.
 - 73. The United States Patent and Trademark Office ("USPTO") duly and legally

May 27, 2014.

l	issued the	1962 Patent on
		1962 Patent on

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

- 74. Twilio owns the right, title and interest in the '962 Patent, with full rights to pursue recovery of royalties or damages for infringement.
- 75. Defendant has infringed and continues to infringe one or more claims of the '962 Patent, including at least Claim 1 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Score and Phone ID products.
- 76. Defendant's Score and Phone ID products relate generally to fraud detection. See https://www.telesign.com/products/.
- 77. The Score product at least receives a phone number, analyzes the phone number, and assigns a fraud score to the phone number. See https://www.telesign.com/products/.
 - 78. The Phone ID product may be used with the Score product.
 - 79. The Score and Phone ID products are offered together and come bundled together.
- 80. Defendant's developer API documentation makes reference to the "Phone ID Score web service." See https://developer.telesign.com/docs/rest_api-phoneid-score.
- 81. Defendant's operation of its Score and Phone ID products infringe one or more claims of the '962 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '962:

18	Claim 1 of the '962:	
10	Claim 1	TeleSign's Score and PhoneID Product
19 20	[1] A method comprising:	See below for elements.
21		By Defendant's operation of the Score and PhoneID products,
22	[1a]enrolling a plurality of accounts on a	Defendant performs this step.
23	telecommunications platform, wherein an	With reference to TeleSign's Score and Phone ID products, TeleSign enrolls a plurality of accounts. Further, each account that enrolls
24	account includes account configuration;	includes account configuration. For example, an account may include a telephone number. See https://www.telesign.com/products/score/
25	decount configuration,	and https://www.telesign.com/products/phone-id/.
26		
27	[1b] at a fraud detection system of the	By Defendant's operation of the Score and PhoneID products, Defendant performs this step.
28	telecommunications	

of the plurality of accounts; By Defendant's operation of the Score and PhoneID Defendant performs this step. With reference to TeleSign's Score and Phone ID products calculates a fraud score from the obtained data that inclust two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/ . See all A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. [1c] calculating fraud	orm receiving U		re and PhoneID P			
wherein the account usage data includes at least communication and billing data. For example checks an account through its Global Clearingh https://www.telesign.com/products/score. As another example further includes communication history of the plurality of accounts; By Defendant's operation of the Score and Phone ID Defendant performs this step. With reference to TeleSign assigns a score valuation accounts. For example, TeleSign assigns a score valuation. For example, TeleSign assigns a score valuation. See https://www.telesign.com/docs/rest api-phoneid-score. I[1c] calculating fraud scores of a set of fraud rules from the usage data, wherein at least sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; It is a rating on a scale from zero to a thousand, and the scale is divided into five suincreasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Recommendation Medium-High Block 601-800 Medium-High Block 601-800 Medium-Low Allow N/A Neutral N/A		Vith reference	to TeleSign's Scor	e and Phone ID products, TeleSig		
checks an account through its Global Clearingh https://www.telesign.com/products/score. As another exam account usage data through historical data on phone nun See https://www.telesign.com/products/score. As another exam account usage data through historical data on phone nun See https://www.telesign.com/products/score. As another example. TeleSign continually extracts historical data from phone nun https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign at least has data relating to number, phone type, and carrier https://developer.telesign.com/docs/rest_api-phoneid-score. https://developer.telesign.com/docs/rest_api-phoneid-sc						
least communication configuration data and billing configuration data of account configuration and further includes communication history of the plurality of accounts; By Defendant's operation of the Score and Phone ID Defendant performs this step.						
configuration data and billing configuration data of account configuration and further includes communication history of the plurality of accounts; By Defendant's operation of the Score and Phone ID Defendant performs this step. With reference to TeleSign.com/docs/rest_api-phoneid-score. another example, TeleSign as least has data relating to https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign at least has data relating to https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign at least has data relating to https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign at least has data relating to https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign as least has data relating to https://developer.telesign.com/docs/rest_api-phoneid-score. another example, TeleSign as far least as the set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; It is a rating on a scale from zero to a thousand, and the scale is divided into five surincreasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score			_	•		
billing configuration data of account configuration and further includes communication history of the plurality of accounts; By Defendant's operation of the Score and Phone ID Defendant performs this step. By Defendant's operation of the Score and Phone ID Defendant performs this step. With reference to TeleSign's Score and Phone ID product calculates a fraud score from the obtained data that inclut two accounts. For example, TeleSign assigns a score value 1000. See https://developer.telesign.com/docs/rest api-phoneid-score/ . With reference to TeleSign's Score and Phone ID product calculates a fraud score from the obtained data that inclut two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/ . See all A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five surincreasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Block 601-800 Medium-High Block 601-800 Medium-Low Allow N/A Neutral N/A		_				
configuration and further includes communication history of the plurality of accounts; By Defendant's operation of the Score and PhoneID Defendant performs this step.						
another example, TeleSign at least has data relating to number, phone type, and carrier https://developer.telesign.com/docs/rest_api-phoneid-score. By Defendant's operation of the Score and Phone ID Defendant performs this step. With reference to TeleSign's Score and Phone ID product calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/. See all Aphone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Recommendation High Block 601-800 Medium-High Block 401-600 Medium-Low Allow Allow N/A Neutral N/A		-		<u> </u>		
communication history of the plurality of accounts; By Defendant's operation of the Score and PhoneID Defendant performs this step. With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclutive accounts. For example, TeleSign assigns a score valuation of the score of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; Core Risk Level Recommendation Block Block		•				
bttps://developer.telesign.com/docs/rest_api-phoneid-score. By Defendant's operation of the Score and PhoneID Defendant performs this step. With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclutive accounts. For example, TeleSign assigns a score valuation of use a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; To a rating on a scale from zero to a thousand, and the scale is divided into five surincreasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation			_			
By Defendant's operation of the Score and PhoneID Defendant performs this step. With reference to TeleSign's Score and Phone ID product calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/ . See all A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sus increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Block 601-800 Medium-High Block 601-800 Medium Flag 201-400 Medium-Low Allow 0-200 Low Allow N/A Neutral N/A	2		1 /1 /			
Defendant performs this step. With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score valuation 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Block 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium-Low Allow 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Medium-High Block 401-600 Medium-Low Allow Allow N/A Neutral N/A						
Defendant performs this step. With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score valuation 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Block 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium-Low Allow 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Medium-High Block 401-600 Medium-Low Allow Allow N/A Neutral N/A						
Defendant performs this step. With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score valuation 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Block 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium-Low Allow 1000 Allow N/A Neutral N/A	R	v Defendant	's operation of the	ne Score and PhoneID produc		
With reference to TeleSign's Score and Phone ID product: calculates a fraud score from the obtained data that inclu two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/ . See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sure increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score 801-1000 High Block 601-800 Medium-High Block 401-600 Medium-Low Allow N/A Neutral N/A		•	*	ic score and inoners produc		
calculates a fraud score from the obtained data that inclutive two accounts. For example, TeleSign assigns a score valuation of usage data patterns between at least two accounts; Calculating fraud scores of a set of fraud rules include conditions of usage data patterns between at least two accounts; Calculates a fraud score from the obtained data that inclutive two accounts. For example, TeleSign assigns a score valuation accounts. For example, TeleSign assigns a score valuation accounts. For example, TeleSign assigns a score valuation. Calculates a fraud score from the obtained data that inclutive two accounts. For example, TeleSign assigns a score valuation.		Serendant periornis una step.				
two accounts. For example, TeleSign assigns a score value 1000. See https://www.telesign.com/products/score/ . See all A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five sur increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Block 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium-Low Allow 0-200 Low Allow N/A Neutral N/A						
[1c] calculating fraud scores of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; 1000. See https://www.telesign.com/products/score/. See all. A phone number's score is a measure of the risk involved with conducting online but transactions with its registered owner. It is a rating on a scale from zero to a thousand, and the scale is divided into five succincreasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium Flag 201-400 Medium-Low Allow 0-200 Low Allow N/A Neutral N/A						
[1c] calculating fraud scores of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; It is a rating on a scale from zero to a thousand, and the scale is divided into five sur increasing ranges. Scores correlate with the risk level associated with the range they and each risk level has an associated recommendation. Score Risk Level Recommendation Score Risk Level Block 601-800 Medium-High Block 601-800 Medium-High Block 401-600 Medium Flag 201-400 Medium-Low Allow N/A Neutral N/A	10					
[1c] calculating fraud scores of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts;	A	A phone number's score is a measure of the risk involved with conducting online business				
scores of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; Score Risk Level Recommendation Medium-High Block 601-800 Medium-High Block 601-800 Medium-Low Allow 201-400 Medium-Low Allow N/A Neutral N/A	1 1 0 1					
rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; Score Risk Level Recommendation High Block 601-800 Medium-High Block 401-600 Medium Flag 201-400 Medium-Low Allow N/A Neutral N/A	_	It is a rating on a scale from zero to a thousand, and the scale is divided into five successively increasing ranges. Scores correlate with the risk level associated with the range they fall into,				
sub-set of the fraud rules include conditions of usage data patterns between at least two accounts; Score Risk Level Recommendation High Block 601-800 Medium-High Block 401-600 Medium Flag 201-400 Medium-Low Allow 0-200 Low Allow N/A Neutral N/A		and each risk level h	as an associated recommen	dation.		
rules include conditions of usage data patterns between at least two accounts; 801-1000 High Block		Score	Risk Level	Recommendation		
between at least two accounts; Medium Flag		801-1000	High	Block		
accounts; 401-600 Medium Flag 201-400 Medium-Low Allow O-200 Low Allow N/A Neutral N/A	include conditions		Medium-High	Block		
0-200 Low Allow N/A Neutral N/A	age data patterns	601-800				
N/A Neutral N/A	age data patterns een at least two		Medium	Flag		
	age data patterns een at least two unts;	401-600				
https://developer.telesign.com/docs/rest_ani_nhoneid_score	age data patterns een at least two unts;	401-600 201-400	Medium-Low	Allow		
mwo.//wovoronor.toroatem.com/uoo/roat/am-im/mitiu-actit	age data patterns een at least two unts;	401-600 201-400 0-200	Medium-Low Low	Allow		
another example, TeleSign tries to reduce fake accoun	age data patterns een at least two unts;	401-600 201-400 0-200 N/A	Medium-Low Low Neutral	Allow Allow N/A		
product and keeps a blacklist to make sure repeat users c	age data patterns een at least two unts;	401-600 201-400 0-200 N/A https://develop.nother examp	Medium-Low Low Neutral er.telesign.com/docole, TeleSign tries	Allow Allow N/A s/rest_api-phoneid-score. As y to reduce fake accounts with		
multiple accounts. See https://www.telesign.com/use-ca	age data patterns een at least two unts; h an pi	401-600 201-400 0-200 N/A https://develop nother examp roduct and ke	Medium-Low Low Neutral er.telesign.com/doc le, TeleSign tries eps a blacklist to r	Allow Allow N/A Ss/rest_api-phoneid-score. As y to reduce fake accounts with inake sure repeat users cannot open		
fake-accounts/ and https://www.telesign.com/products/scor	age data patterns een at least two unts; had an property and property	401-600 201-400 0-200 N/A https://develop nother examp roduct and ke nultiple accounts	Medium-Low Low Neutral er.telesign.com/doc le, TeleSign tries eps a blacklist to r unts. See https://v	Allow Allow N/A s/rest_api-phoneid-score. As y to reduce fake accounts with hake sure repeat users cannot open www.telesign.com/use-cases/reduce		
[1d] detecting when the	age data patterns een at least two unts; had an property and property	401-600 201-400 0-200 N/A https://develop nother examp roduct and ke nultiple accounts	Medium-Low Low Neutral er.telesign.com/doc le, TeleSign tries eps a blacklist to r unts. See https://v	Allow Allow N/A s/rest_api-phoneid-score. As y to reduce fake accounts with hake sure repeat users cannot open www.telesign.com/use-cases/reduce		
fraud scores of an By Defendant's operation of the Score and PhoneID	age data patterns een at least two unts; h an pr m fa	401-600 201-400 0-200 N/A https://develop nother examp roduct and ke nultiple accounts	Medium-Low Low Neutral er.telesign.com/doc le, TeleSign tries eps a blacklist to r unts. See https://v	Allow Allow N/A s/rest_api-phoneid-score. As y to reduce fake accounts with hake sure repeat users cannot open www.telesign.com/use-cases/reduce		

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

Claim 1	TeleSign's Score and PhoneID Product
account satisfy a fraud threshold;	Defendant performs this step.
	With reference to TeleSign's Score and Phone ID products, TeleSig detects when the fraud score of an account hits a threshold amoun For example, TeleSign uses a numbering system between 0 and 100 and will detect when an account score reaches a certain threshold. Se https://developer.telesign.com/docs/implement-your-score-policy an https://www.telesign.com/products/score .
	By Defendant's operation of the Score and PhoneID products Defendant performs this step.
[1e] initiating an action response when a fraud score satisfies the fraud threshold.	With reference to TeleSign's Score and Phone ID products, TeleSig initiates an action response when an account reaches a certain threshold. For example, TeleSign uses a numbering system between and 1000 and upon an account reaching a certain threshold initiates a action. For example, TeleSign may indicate whether an account
	should be blocked or not blocked. Se https://developer.telesign.com/docs/rest_api-phoneid-score an https://www.telesign.com/products/score/ .

- 82. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- 83. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 84. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '962 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 85. Defendant's infringement of the '962 Patent has been and continues to be willful, flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
 - 86. Based on at least Defendant's analysis of Twilio's products, Defendant either

BAKER BOTTS L.L.P.

1

3 4

5 6

8 9

7

10

11

12 13

14 15

16 17

18

19 20

21

22 23

24

25

26 27

28

knows or should have known about its risk of infringement regarding the '962 Patent.

87. Defendant's conduct despite this knowledge is made with a reckless disregard for the infringing nature of their activities.

Count II (Infringement of U.S. Patent No. 9,270,833)

- 88. Twilio incorporates by reference and realleges all the foregoing paragraphs of this Complaint as if fully set forth herein.
- 89. The United States Patent and Trademark Office ("USPTO") duly and legally issued the '833 Patent on February 23, 2016.
- 90. Twilio owns the right, title and interest in the '833 Patent, with full rights to pursue recovery of royalties or damages for infringement.
- 91. Defendant has infringed and continues to infringe one or more claims of the '833 Patent, including at least Claim 5 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Score and Phone ID product.
- 92. Defendant's Score and Phone ID products relate generally to fraud detection. See https://www.telesign.com/products/.
- 93. The Score product at least receives a phone number, reviews the phone number for fraud, and assigns a score to the phone number. See https://www.telesign.com/products/.
 - 94. The Phone ID product may be used with the Score product.
- 95. Defendant's developer API documentation makes reference to the "Phone ID Score web service." See https://developer.telesign.com/docs/rest_api-phoneid-score.
- 96. Defendant's operation of its Score and Phone ID products infringe one or more claims of the '833 Patent. As an example of one theory of infringement and with reference to Claim 5 of the '833:

Claim 5	TeleSign's Score and PhoneID Product
[5] A method comprising: at a telecommunication platform:	By Defendant's operation of the Score and PhoneID products, Defendant performs this step. With reference to TeleSign's Score and Phone ID products, TeleSign

	maintains a telecommunication platform, for example its Phone ID Score web service. <i>See</i> https://developer.telesign.com/docs/rest_api-phoneid-score .
	By Defendant's operation of the Score and PhoneID products,
[5a] enrolling a	Defendant performs this step.
plurality of parent	With reference to TeleSign's Score and Phone ID products, TeleSign
telecommunication	advertises its products to help customers protect end-user accounts from fraud. See https://www.telesign.com/contact/ . Further, TeleSign
platform;	enrolls a plurality of parent accounts on its platform. <i>See</i> https://www.telesign.com/products/score/ and
	https://www.telesign.com/products/phone-id/.
	By Defendant's operation of the Score and PhoneID products,
[5b] within a first	Defendant performs this step.
enrolled account,	With reference to TeleSign's Score and Phone ID products, TeleSign
sub-account that is	enrolls a plurality of sub-accounts that may be managed by the first account. For example, the sub-accounts that enroll are the accounts of
managed by the first account;	users that are managed by the developer of the application. See https://www.telesign.com/products/score/ and
	https://www.telesign.com/products/score/ https://www.telesign.com/products/phone-id/.
	By Defendant's operation of the Score and PhoneID products,
[5c] at a fraud detection system of the	Defendant performs this step.
telecommunications	With reference to TeleSign's Score and Phone ID products, TeleSign
account usage data of a	receives sub-account usage data related to the account, wherein the sub-account usage data includes both configuration data and
accounts of the	communication history data. For example, TeleSign checks an account through its Global Clearinghouse. See
platform, wherein the	https://www.telesign.com/products/score. As another example, TeleSign checks sub-account usage data through historical data on
sub-account usage data of each of the plurality	phone number usage. See https://www.telesign.com/products/score .
of sub-accounts	As another example, TeleSign continually extracts historical data from phone numbers. <i>See</i>
configuration data of	https://developer.telesign.com/docs/rest_api-phoneid-score. As yet another example, TeleSign at least has data relating to the phone
the sub-account and communication history	number, phone type, and carrier. See
data;	https://developer.telesign.com/docs/rest_api-phoneid-score.
[5d] calculating fraud	By Defendant's operation of the Score and PhoneID products,
	[5b] within a first enrolled account, enrolling at least one sub-account that is managed by the first account; [5c] at a fraud detection system of the telecommunications platform, receiving sub-account usage data of a plurality of sub-accounts of the telecommunication platform, wherein the sub-account usage data of each of the plurality of sub-accounts includes at least configuration data of the sub-account and communication history data;

	Claim 5	TeleSign's Scor	e and PhoneID Prod	luct
1	scores of a set of fraud	Defendant performs this step.		
2	scores from the sub-	With reference to TeleSign's Score and Phone ID products, TeleSign		
3	account usage data;		_	ne obtained data from the sub-
		account. For exa	ample, TeleSign assig	ns a score value from 0 to 1000.
4		See https://www	v.telesign.com/product	s/score/. See also lved with conducting online business
5		transactions with its r		
6				the scale is divided into five successively associated with the range they fall into,
7			s an associated recommendation	
8		Score	Risk Level	Recommendation
		801-1000	High	Block
9		601-800	Medium-High	Block
10		401-600	Medium	Flag
11				
12		201-400	Medium-Low	Allow
		0-200	Low	Allow
13		N/A	Neutral	N/A
14		https://develope	er.telesign.com/docs/re	est_api-phoneid-score. As yet
15		_	,	e velocity and traffic patterns of
16		an account https://www.tele	in calculating esign.com/products/sc	a fraud score. <i>See</i> ore/. As yet another example,
17		TeleSign's Pho	oneID Score may	return a Risk, Risk Level,
			on, or Score associant telesign.com/docs/re	ated with a sub-account. See
18			•	
19	[5e] in a case where the set of fraud scores of a	By Defendant's Defendant perfo	•	Score and PhoneID products,
20	sub-account satisfy a	Defendant perio	ins uns step.	
21	fraud threshold,		_	nd Phone ID products, TeleSign
22	programmatically notifying the			count hits a threshold amount.
	corresponding parent	and will detect v	when an account score	e reaches a certain threshold. See
23	account of illicit behavior of the sub-			<u>ore</u> . Further, TeleSign notifies
24	account, the	the parent accou	int of the potentially f	raudulent account. For example,
25	notification being provided via the	TeleSign may as blocked	sk the parent account or not	whether a sub-account should be blocked. See
26	telecommunication		r.telesign.com/docs/re	
	platform;	https://www.tele	esign.com/products/sc	ore/.
27	[5f] wherein illicit			
28		I		

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

Claim 5	TeleSign's Score and PhoneID Product
behavior includes at least one of toll fraud, spamming, terms of	By Defendant's operation of the Score and PhoneID products, Defendant performs this step.
service violations, denial of service attacks, credit card fraud, suspicious behavior, and phishing attacks,	With reference to TeleSign's Score and Phone ID products, TeleSign's software is implemented to prevent illicit behavior. For example, TeleSign tries to reduce fake accounts with its product and keeps a blacklist to make sure repeat users cannot open multiple accounts. See https://www.telesign.com/use-cases/reduce-fake-accounts/ and https://www.telesign.com/products/score/ . As yet another example, TeleSign's product may determine illicit behavior through credit card stop payments, identify theft, spam, hacking, or other types of online fraud. https://developer.telesign.com/docs/rest_api-phoneid-score.
[5g] wherein the parent	By Defendant's operation of the Score and PhoneID products, Defendant performs this step.
account is an account of an external service provider system, and wherein each subaccount is an account of a system that uses a service of the external service provider system.	With reference to TeleSign's Score and Phone ID products, the parent account is associated with an external service and each sub-account is an account that uses the external service. For example, TeleSign includes developer API documentation on its website that allows for parent accounts of an external service to integrate the Score and Phone ID product. See https://developer.telesign.com/docs/implement-your-score-policy and https://www.telesign.com/docs/implement-your-score-policy and https://developer.telesign.com/docs/implement-your-score-policy and https://www.telesign.com/customers/tinder/ .

- 97. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- 98. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 99. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '833 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
 - 100. Defendant's infringement of the '833 Patent has been and continues to be willful,

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for
example, \P 52 – 71. The evidence tending to support this allegation will likely have evidentiary
support after a reasonable opportunity for further investigation or discovery.

- Based on at least Defendant's analysis of Twilio's products, Defendant either 101. knows or should have known about its risk of infringement regarding the '833 Patent.
- 102. Defendant's conduct despite this knowledge is made with a reckless disregard for the infringing nature of their activities.

Count III (Infringement of U.S. Patent No. 8,738,051)

- 103. Twilio incorporates by reference and realleges all the foregoing paragraphs of this Complaint as if fully set forth herein.
- 104. The United States Patent and Trademark Office ("USPTO") duly and legally issued the '051 Patent on May 27, 2014.
- 105. Twilio owns the right, title and interest in the '051 Patent, with full rights to pursue recovery of royalties or damages for infringement.
- 106. Defendant has infringed and continues to infringe one or more claims of the '051 Patent, including at least Claim 1 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Smart Verify, SMS Verify, Voice Verify, Push Verify, and Auto Verify products.
- 107. Defendant's Smart Verify, SMS Verify, Voice Verify, Push Verify, and Auto Verify products relate generally to end-user verification and two-factor authentication. See https://www.telesign.com/products/.
- 108. Defendant's Smart Verify, SMS Verify, Voice Verify, Push Verify, and Auto Verify products each transmit messages to verify a user.
- For example, and with reference to SMS Verify, the SMS Verify product transmits SMS text messages to verify users. See https://www.telesign.com/products/smsverify/.
 - 110. The SMS Verify product transmits messages through different networks or

carriers.

Defendant's operation of its SMS Verify product infringes one or more claims of 111. the '051 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '051 Patent:

Claim 1 TeleSign's SMS Verify Product	
[1] A method for transmitting telephony messages comprising:	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, TeleSign transmits SMS messages. See https://developer.telesign.com/docs/rest_api-verify-sms and https://www.telesign.com/products/sms-verify/ .
[1a] transmitting a first outgoing telephony message through a first channel using a first routing option selected from a plurality of routing options;	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, TeleSign transmits outgoing messages through a first channel. For example, TeleSign transmits SMS messages to users for verification. See https://developer.telesign.com/docs/rest_api-verify-sms and https://www.telesign.com/products/sms-verify/ . Further, TeleSign transmits the messages through a routing option. For example, TeleSign may transmit messages through a network or a carrier. As yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/ .
[1b] receiving a message delivery report through at least a second channel, wherein the second channel is different from the first channel;	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, TeleSign receives a message delivery report through a channel different than the first channel. For example, after TeleSign transmits a message, TeleSign may then receive feedback regarding information about the transmitted message that is received on a different channel. <i>See</i> https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#obtain-verification-resultssend-completion-data and https://www.telesign.com/products (TeleSign is a Mobile Network Operator).
[1c] updating message routing data in response to the message delivery report;	By Defendant's operation of its SMS Verify product, Defendant performs this step.

Claim 1	TeleSign's SMS Verify Product
	With reference to TeleSign's SMS Verify product, after receiving the message delivery report, TeleSign may update its routing data based on the report. For example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. <i>See</i> https://developer.telesign.com/page/faq . For example, TeleSign is a MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery report. <i>See</i> https://www.telesign.com/products/ .
[1d] selecting a second routing option for at least a second outgoing message, the second routing option selected from the plurality of routing options prioritized by the updated message routing data; and	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, after TeleSign has updated the message routing data, TeleSign then may select a second routing option based on the updated message routing data. For example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. See https://developer.telesign.com/page/faq . For example, TeleSign is a MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery report. See https://www.telesign.com/products/ .
[1e] transmitting the second outgoing telephony message through the first channel using the selected second routing option.	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, TeleSign transmits outgoing messages through a first channel. For example, TeleSign transmits SMS messages to users for verification. See https://developer.telesign.com/docs/rest_api-verify-sms and https://www.telesign.com/products/sms-verify/ . Further, TeleSign transmits the messages through a routing option this is different than the routing option that was used for transmitting a previous message. For example, TeleSign transmits messages through a numerous networks or carriers. As yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/ .

- 112. For example, and with reference to Voice Verify, the Voice Verify product transmits voice messages to verify users. See https://www.telesign.com/products/voice-verify.
- The Voice Verify product transmits messages through different networks or 113. carriers.

2

Defendant's operation of its Voice Verify product infringes one or more claims 114. of the '051 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '051 Patent'

3	of the '051 Patent:		
4	Claim 1 TeleSign's Voice Verify Product		
5		By Defendant's operation of its Voice Verify product, Defendant performs this step.	
6	[1] A method for	With reference to TeleSion's Voice Verify and that TeleSion	
7	transmitting telephony messages comprising:	With reference to TeleSign's Voice Verify product, TeleSign transmits voice messages. See	
8		https://developer.telesign.com/docs/rest_api-verify-call and https://www.telesign.com/products/voice-verify/.	
9		integration with the contract of the contract	
10		By Defendant's operation of its Voice Verify product, Defendant	
11	M 14 '44' C' 4	performs this step.	
12	[1a] transmitting a first outgoing telephony	With reference to TeleSign's Voice Verify product, TeleSign transmits outgoing messages through a first channel. For example,	
13	message through a first channel using a first	TeleSign transmits voice messages to users for verification. See	
14	routing option selected from a plurality of	https://developer.telesign.com/docs/rest_api-verify-call and https://www.telesign.com/products/voice-verify/. Further, TeleSign	
15	routing options;	transmits the messages through a routing option. For example, TeleSign may transmit messages through a network or a carrier. As	
16		yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/.	
17			
18		By Defendant's operation of its Voice Verify product, Defendant performs this step.	
19	[1b] receiving a	performs this step.	
20	message delivery report	With reference to TeleSign's Voice Verify product, TeleSign receives a message delivery report through a channel different than the first	
21	through at least a second channel,	channel. For example, after TeleSign transmits a message, TeleSign may then receive feedback regarding information about the	
22	wherein the second channel is different	transmitted message that is received on a different channel. See	
23	from the first channel;	https://developer.telesign.com/v2.0/docs/rest_api-verify-call#obtain-verification-resultssend-completion-data and	
24		https://www.telesign.com/products (TeleSign is a Mobile Network Operator).	
25		operator).	
26 27	[1c] updating message routing data in response to the message delivery	By Defendant's operation of its Voice Verify product, Defendant performs this step.	
28	report;	With reference to TeleSign's Voice Verify product, after receiving the	

25

26

27

1	Claim 1	TeleSign's Voice Verify Product
2		message delivery report, TeleSign may update its routing data based on the report. For example, TeleSign makes necessary adjustments to
3		ensure delivery of its messages through the best possible route. <i>See</i> https://developer.telesign.com/page/faq . For example, TeleSign is a
4		MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery
5		report. See https://www.telesign.com/products/ .
6		By Defendant's operation of its Voice Verify product, Defendant
7	[1d] selecting a second routing option for at	performs this step.
8	least a second outgoing	With reference to TeleSign's Voice Verify product, after TeleSign has
9	message, the second routing option selected	updated the message routing data, TeleSign then selects a second routing option based on the updated message routing data. For
10	from the plurality of routing options	example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. <i>See</i>
11	prioritized by the updated message	https://developer.telesign.com/page/faq. For example, TeleSign is a MNO and has relations with telecommunication operators that permit
12 13	routing data; and	TeleSign to use multiple different routing options based on a delivery report. See https://www.telesign.com/products/ .
13		
15		By Defendant's operation of its Voice Verify product, Defendant performs this step.
16	[1a] transmitting the	
17	[1e] transmitting the second outgoing	With reference to TeleSign's Voice Verify product, TeleSign transmits outgoing messages through a first channel. For example,
18	telephony message through the first	TeleSign transmits voice messages to users for verification. See https://developer.telesign.com/docs/rest_api-verify-call and
19	channel using the selected second routing	https://www.telesign.com/products/voice-verify/. Further, TeleSign transmits the messages through a routing option that is different than
20	option.	the routing option that was used for transmitting a previous message. For example, TeleSign transmits messages through a numerous
21		networks or carriers. As yet another example, TeleSign is a Mobile Network Operator (MNO). <i>See</i> https://www.telesign.com/products/ .
22		The state of the s
23	115. For exam	ple, and with reference to Push Verify, the Push Verify product

- For example, and with reference to Push Verify, the Push Verify product transmits push messages to verify users. See https://www.telesign.com/products/push-verify/.
- The Push Verify product transmits messages through different networks or 116. carriers.
- Defendant's operation of its Push Verify product infringes one or more claims of 117. the '051 Patent. As an example of one theory of infringement and with reference to Claim 1 of

41	20 5 1	Patent:
the	1115 1	Patent:
uic	UJ I	I atom.

1	the '051 Patent:		
2	Claim 1	TeleSign's Push Verify Product	
3		By Defendant's operation of its Push Verify product, Defendant performs this step.	
4	[1] A method for transmitting telephony	With reference to TeleSign's Push Verify product, TeleSign transmits	
5	messages comprising:	messages through a push request. See https://developer.telesign.com/docs/overview and	
6 7		https://www.telesign.com/products/push-verify/.	
8		By Defendant's operation of its Push Verify product, Defendant performs this step.	
	[1a] transmitting a first	With reference to TeleSign's Push Verify product, TeleSign transmits	
10 11	outgoing telephony message through a first	outgoing messages through a first channel. For example, TeleSign transmits push notification messages to users for verification. See	
	channel using a first routing option selected	https://developer.telesign.com/docs/overview and	
12 13	from a plurality of routing options;	https://www.telesign.com/products/push-verify/. Further, TeleSign transmits the messages through a routing option. For example,	
13	routing options,	TeleSign may transmit messages through a network or a carrier. As yet another example, TeleSign is a Mobile Network Operator (MNO).	
15		See https://www.telesign.com/products/ .	
16		By Defendant's operation of its Push Verify product, Defendant	
17	[1b] receiving a	performs this step.	
18	message delivery report through at least a	With reference to TeleSign's Push Verify product, TeleSign receives a message delivery report through a channel different than the first	
19	second channel, wherein the second	channel. For example, after TeleSign transmits a message, TeleSign may then receive feedback regarding information about the	
20	channel is different from the first channel;	transmitted message that is received on a different channel. <i>See</i> https://developer.telesign.com/v2.0/docs/rest api-verify-push#to-get-	
21		the-verification-results and https://www.telesign.com/products (TeleSign is a Mobile Network Operator).	
22		(101001gh is a moone more operator).	
23	[1] 1 d	By Defendant's operation of its Push Verify product, Defendant	
24	[1c] updating message routing data in response	performs this step.	
25	to the message delivery report;	With reference to TeleSign's Push Verify product, after receiving the	
26	Toport,	message delivery report, TeleSign updates its routing data based on the report. For example, TeleSign makes necessary adjustments to	
27		ensure delivery of its messages through the best possible route. See https://developer.telesign.com/page/faq . For example, TeleSign is a	
28			

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

Claim 1	TeleSign's Push Verify Product	
	MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery report. <i>See</i> https://www.telesign.com/products/ .	
[1d] selecting a second routing option for at least a second outgoing message, the second routing option selected from the plurality of routing options prioritized by the updated message routing data; and	By Defendant's operation of its Push Verify product, Defendant performs this step. With reference to TeleSign's Push Verify product, after TeleSign has updated the message routing data, TeleSign then selects a second routing option based on the updated message routing data. For example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. See https://developer.telesign.com/page/faq . For example, TeleSign is a MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery report. See https://www.telesign.com/products/ .	
	By Defendant's operation of its Push Verify product, Defendant performs this step.	
[1e] transmitting the second outgoing telephony message through the first channel using the selected second routing option.	With reference to TeleSign's Push Verify product, TeleSign transmits outgoing messages through a first channel. For example, TeleSign transmits push notification messages to users for verification. See https://developer.telesign.com/docs/overview and https://www.telesign.com/products/push-verify/ . Further, TeleSign transmits the messages through a routing option that is different than the routing option that was used for transmitting a previous message. For example, TeleSign transmits messages through a numerous networks or carriers. As yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/ .	
118. For example, and with reference to Auto Verify, the Auto Verify product		

- For example, and with reference to Auto Verify, the Auto Verify product 118. voice calls **SMS** verify transmits messages See or to users. https://developer.telesign.com/docs/av-sdk-overview.
- The Auto Verify product transmits messages through different networks or 119. carriers.
- 120. Defendant's operation of its Auto Verify product infringes one or more claims of the '051 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '051 Patent:

1	Claim 1	TeleSign's Auto Verify Product
2 3 4 5	[1] A method for transmitting telephony messages comprising:	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Auto Verify product, TeleSign transmits a voice call or SMS message. See https://developer.telesign.com/docs/av-sdk-overview and https://www.telesign.com/products/auto-verify/ .
6 7 8 9 10 11 12 13 14	[1a] transmitting a first outgoing telephony message through a first channel using a first routing option selected from a plurality of routing options;	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Auto Verify product, TeleSign transmits outgoing messages through a first channel. For example, TeleSign transmits a voice or SMS message to users for verification. See https://developer.telesign.com/docs/av-sdk-overview and https://www.telesign.com/products/auto-verify/ . Further, TeleSign transmits the messages through a routing option. For example, TeleSign may transmit messages through a network or a carrier. As yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/ .
15 16 17 18 19 20 21	[1b] receiving a message delivery report through at least a second channel, wherein the second channel is different from the first channel;	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign receives a message delivery report through a channel different than the first channel. For example, after TeleSign transmits a message, TeleSign may then receive feedback regarding information about the transmitted message that is received on a different channel. <i>See</i> https://developer.telesign.com/docs/av-sdk-obtaining-verification-status and https://www.telesign.com/products (TeleSign is a Mobile Network Operator).
22232425262728	[1c] updating message routing data in response to the message delivery report;	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Auto Verify product, after receiving the message delivery report, TeleSign updates its routing data based on the report. For example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. <i>See</i> https://developer.telesign.com/page/faq . For example, TeleSign is a MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

Claim 1	TeleSign's Auto Verify Product
	report. See https://www.telesign.com/products/ .
[1d] selecting a second routing option for at least a second outgoing message, the second routing option selected from the plurality of routing options prioritized by the updated message routing data; and	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Auto Verify product, after TeleSign has updated the message routing data, TeleSign then selects a second routing option based on the updated message routing data. For example, TeleSign makes necessary adjustments to ensure delivery of its messages through the best possible route. <i>See</i> https://developer.telesign.com/page/faq . For example, TeleSign is a MNO and has relations with telecommunication operators that permit TeleSign to use multiple different routing options based on a delivery report. <i>See</i> https://www.telesign.com/products/ .
[1e] transmitting the second outgoing telephony message through the first channel using the selected second routing option.	By Defendant's operation of its Auto Verify product, Defendant performs this step. With reference to TeleSign's Auto Verify product, TeleSign transmits outgoing messages through a first channel. For example, TeleSign transmits a voice or SMS message to users for verification. See https://developer.telesign.com/docs/av-sdk-overview and https://www.telesign.com/products/auto-verify/ . Further, TeleSign transmits the messages through a routing option that is different than the routing option that was used for transmitting a previous message. For example, TeleSign transmits messages through a numerous networks or carriers. As yet another example, TeleSign is a Mobile Network Operator (MNO). See https://www.telesign.com/products/ .
selected second routing option.	transmits the messages through a routing option that is different the routing option that was used for transmitting a previous For example, TeleSign transmits messages through a networks or carriers. As yet another example, TeleSign is

- 121. Defendant's Smart Verify product infringes one or more claims of the '051 Patent, including at least Claim 1.
- 122. The Smart Verify product transmits See messages to users. https://www.telesign.com/products/smart-verify/.
- 123. Smart Verify uses either Push Verify, SMS Verify, or Voice Verify to transmit messages. https://developer.telesign.com/docs/rest_api-smart-verify.
- 124. Smart Verify also transmits messages through a plurality of routing options through use of Push Verify, SMS Verify, or Voice Verify.
 - Smart Verify works in the same manner as the above charted products, but 125.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

bundles	Defendant'	s infringing	products	(including	Push,	SMS,	and	Voice	Verify,	which	charts
are inco	rporated by	reference) is	nto a sing	le product.							

- 126. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- 127. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 128. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '051 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- Defendant's infringement of the '051 Patent has been and continues to be willful, 129. flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 130. Based on at least Defendant's analysis of Twilio's products, Defendant either knows or should have known about its risk of infringement regarding the '051 Patent.
- Defendant's conduct despite this knowledge is made with a reckless disregard for 131. the infringing nature of their activities.

Count IV (Infringement of U.S. Patent No. 8,306,021)

- 132. Twilio incorporates by reference and realleges all the foregoing paragraphs of this Complaint as if fully set forth herein.
- The United States Patent and Trademark Office ("USPTO") duly and legally 133. issued the '021 Patent on November 6, 2012.
- Twilio owns the right, title and interest in the '021 Patent, with full rights to 134. pursue recovery of royalties or damages for infringement.
- Defendant has infringed and continues to infringe one or more claims of the '021 135. Patent, including at least Claim 13 by advertising, distributing, making, using, selling and

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

- offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Smart Verify, Auto Verify, SMS Verify, and Push Verify.
- 136. Defendant's Smart Verify, Auto Verify, SMS Verify, and Push Verify products verification and two-factor authentication. relate generally to end-user See https://www.telesign.com/products/.
- 137. Defendant's Smart Verify, Auto Verify, SMS Verify, and Push Verify products each communicate with applications through an application layer protocol, send messages to applications, and receive and respond to API requests.
- Defendant's operation of its SMS Verify product infringes one or more claims of the '021 Patent. As an example of one theory of infringement and with reference to Claim 13 of the '021 Patent:

Claim 13	TeleSign's SMS Verify Product
[13] A method comprising:	See below for elements.
[13a] communicating with an application server using an application layer protocol; processing telephony instructions with a call router;	By Defendant's operation of its SMS Verify product, Defendant performs this step. With reference to TeleSign's SMS Verify product, TeleSign communicates with an application server through an application layer protocol and processes telephony instructions with a call router. For example, TeleSign's SMS Verify communicates with applications by at least receiving requests to transmit SMS messages to users for verification. See https://developer.telesign.com/docs/rest_api-verify-sms and https://www.telesign.com/products/sms-verify/ . Further, TeleSign's SMS Verify communicates with the application server using an application layer protocol. For example, the application layer protocol is HTTP. Further, SMS Verify processes instructions for a call router at least upon receiving a request to transmit a message. See https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#verifying-the-code . As yet another example, TeleSign is a Mobile Network Operator (MNO) and as such must process telephony instructions with a call router. See https://www.telesign.com/products/ .
[13b] creating call router resources	By Defendant's operation of its SMS Verify product, Defendant performs this step.

1	Claim 13	TeleSign's SMS Verify Product
2	accessible through a call router Application Programming Interface	With reference to TeleSign's SMS Verify product, TeleSign creates call router resources that it makes accessible through its API and
3	(API), wherein the call	where the call router resources are accessible by an outside device at
4	router resources are accessible by outside	an URI. For example, TeleSign makes the SMS Verify product accessible through its SMS Verify API. See
5	devices at an addressable Uniform	https://developer.telesign.com/docs/rest_api-verify-sms. Further, the call router resources are accessible by outside devices at an
6	Resource Identifier (URI);	addressable URI. See https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#uri . For
7		example, TeleSign's SMS Verify API documentation explains the construction of resource URIs. See
8		https://developer.telesign.com/docs/rest_api-verify-transaction-callback.
9		
10		By Defendant's operation of its SMS Verify product, Defendant performs this step.
12	[13c] mapping a	
13	telephony session to the URI, the URI being	With reference to TeleSign's SMS Verify product, in addition to creating the call router resource, TeleSign also maps the telephony
14	associated with the application server;	session to the URI that is associated with the application server, sends the request to the application server, and embeds state information
15	sending a request to the	associated with the telephony session in the request. For example, the SMS Verify API creates at least a reference ID and URI when
16	application server;	communicating with the application server which embeds state information. <i>See</i> https://developer.telesign.com/docs/rest_api-verify-
17	embedding state information of the	<u>transaction-callback, https://developer.telesign.com/v2.0/docs/getting-started-with-the-rest-api#uri-structure</u> . As yet another example, the
18	telephony session in the request;	reference ID that is associated with the application server is sent to the application server. See
19 20		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-callback#getstatus.
20		
22		By Defendant's operation of its SMS Verify product, Defendant performs this step.
23	[13d] receiving from the application server a	With reference to TeleSign's SMS Verify product, SMS Verify
24	response comprising telephony instructions	receives a response from an application that comprises telephony
25	for sequential processing;	instructions for processing. For example, TeleSign's SMS Verify may receive requests related to at least authentication that comprise
26	F-33300005,	telephone instructions and that are processed sequentially. <i>See</i> https://developer.telesign.com/v2.0/docs/rest_api-verify-
27		sms#requests.
28	[13e] receiving an API	

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

1	Claim 13	TeleSign's SMS Verify Product				
1	request from the	By Defendant's operation of its SMS Verify product, Defendant				
2	application server for	performs this step.				
	interaction with a					
3	resource; and	With reference to TeleSign's SMS Verify product, SMS Verify				
		receives API requests from applications for interaction with a resource				
4	responding to an API	and responds to the API requests based on the interaction with the				
5	request based on the	resource. As by way of example, TeleSign's SMS Verify may receive				
	interaction with a	GET and POST requests from an application for interaction with a				
6	resource.	resource and responded to the request according. See				
		https://developer.telesign.com/v2.0/docs/rest_api-verify-				
7		sms#supported-http-methods and				
0		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-				
8		<u>callback</u> .				
9						
/						

For example, and with reference to Push Verify, the Push Verify product 139. communicates with applications through an application layer protocol, sends messages to applications, and receives **API** and responds requests. See to https://developer.telesign.com/docs/overview.

Defendant's operation of its Push Verify product infringes one or more claims of 140. the '021 Patent. As an example of one theory of infringement and with reference to Claim 13 of the '021 Patent:

Claim 13	TeleSign's Push Verify Product
[13] A method comprising:	See below for elements.
	By Defendant's operation of its Push Verify product, Defendant performs this step.
[13a] communicating with an application server using an application layer protocol; processing telephony instructions with a call router;	With reference to TeleSign's Push Verify product, TeleSign communicates with an application server through an application layer protocol and processes telephony instructions with a call router. For example, TeleSign's Push Verify communicates with applications by at least receiving requests to transmit push notifications to users for verification. <i>See</i> https://developer.telesign.com/docs/overview and https://developer.telesign.com/products/push-verify/ . Further, TeleSign's SMS Verify communicates with the application server using an application layer protocol. For example, the application layer protocol is HTTP. Further, Push Verify processes instructions for a call router at least upon receiving a request to transmit a message. <i>See</i> https://developer.telesign.com/v2.0/docs/rest_api-verify-push#to-get-the-verification-results . As yet another example, TeleSign is a Mobile Network Operator (MNO) and as such must process telephony

1	Claim 13	TeleSign's Push Verify Product
		instructions with a call router. See https://www.telesign.com/products/ .
2 3		- The state of the
4		Dry Defendant's energtion of its Duck Verify product Defendant
5	[13b] creating call	By Defendant's operation of its Push Verify product, Defendant performs this step.
6	router resources accessible through a	With reference to TeleSign's Push Verify product, TeleSign creates
7	call router Application	call router resources that it makes accessible through its API and where the call router resources are accessible by an outside device at
8	Programming Interface (API), wherein the call	an URI. For example, TeleSign makes the Push Verify product accessible through its Push Verify API. See
9	router resources are accessible by outside	https://developer.telesign.com/docs/overview. Further, the call router resources are accessible by outside devices at an addressable URI. See
10	devices at an addressable Uniform	https://developer.telesign.com/v2.0/docs/rest_api-verify-push#uri. For example, TeleSign's Push Verify API documentation explains the
11	Resource Identifier (URI);	construction of resource URIs. See
12		https://developer.telesign.com/docs/rest_api-verify-transaction-callback.
13		
14		By Defendant's operation of its Push Verify product, Defendant performs this step.
15	[13c] mapping a telephony session to the	With reference to TeleSign's Push Verify product, in addition to
16	URI, the URI being associated with the	creating the call router resource, TeleSign also maps the telephony session to the URI that is associated with the application server, sends
17 18	application server;	the request to the application server, and embeds state information associated with the telephony session in the request. For example, the
19	sending a request to the	Push Verify API creates at least a reference ID and URI when
20	application server;	communicating with the application server which embeds state information. See https://developer.telesign.com/docs/rest_api-verify-
21	embedding state information of the	<u>transaction-callback</u> , <u>https://developer.telesign.com/v2.0/docs/getting-started-with-the-rest-api#uri-structure</u> . As yet another example, the
22	telephony session in the request;	reference ID that is associated with the application server is sent to the application server. See
23		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-callback#getstatus.
24	[13d] receiving from	
25	the application server a	By Defendant's operation of its Push Verify product, Defendant
26	response comprising telephony instructions	performs this step.
27	for sequential processing;	With reference to TeleSign's Push Verify product, Push Verify receives a response from an application that comprises telephony
28		instructions for processing. For example, TeleSign's Push Verify may

15

16

17

18

19

20

21

22

23

24

25

26

27

28

1	Claim 13	TeleSign's Push Verify Product
2		receive requests related to at least authentication that comprise telephone instructions and that are processed sequentially. <i>See</i> https://developer.telesign.com/v2.0/docs/rest api-verify-
3		push#requests.
4		
5	112 1 · · · ADI	By Defendant's operation of its Push Verify product, Defendant performs this step.
6	[13e] receiving an API request from the	With reference to TeleSign's Push Verify product, Push Verify
7	application server for interaction with a	receives API requests from applications for interaction with a resource
8	resource; and	and responds to the API requests based on the interaction with the resource. As by way of example, TeleSign's Push Verify may receive
9	responding to an API request based on the	GET and POST requests from an application for interaction with a resource and respond to the request accordingly. See
10	interaction with a	https://developer.telesign.com/v2.0/docs/rest_api-verify-push#supported-http-methods and
11	resource.	https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-
12		<u>callback</u> .
13	141. For exam	ple, and with reference to Auto Verify, the Auto Verify product

For example, and with reference to Auto Verify, the Auto Verify product 141. communicates with applications through an application layer protocol, sends messages to applications, and **API** See receives and responds to requests. https://developer.telesign.com/docs/av-sdk-overview.

Defendant's operation of its Auto Verify product infringes one or more claims of 142. the '021 Patent. As an example of one theory of infringement and with reference to Claim 13 of the '021 Patent:

Claim 13	TeleSign's Auto Verify Product
[13] A method comprising:	See below for elements.
[13a] communicating with an application	By Defendant's operation of its Auto Verify product, Defendant performs this step.
server using an application layer protocol;	With reference to TeleSign's Auto Verify product, TeleSign communicates with an application server through an application layer protocol and processes telephony instructions with a call router. For
processing telephony instructions with a call router;	example, TeleSign's Auto Verify communicates with applications by at least receiving requests to transmit a voice call or SMS message to users for verification. See https://developer.telesign.com/docs/av-sdk-overview and https://www.telesign.com/products/auto-verify/ . Further, TeleSign's SMS Verify communicates with the application

	Claim 13	TeleSign's Auto Verify Product
1 2		server using an application layer protocol. For example, the application layer protocol is HTTP. Further, Auto Verify processes
3		instructions for a call router at least upon receiving a request to transmit a message. See https://developer.telesign.com/docs/av-sdk-
4		obtaining-verification-status. As yet another example, TeleSign is a
5		Mobile Network Operator (MNO) and as such must process telephony instructions with a call router. See
6		https://www.telesign.com/products/.
7		
8		By Defendant's operation of its Auto Verify product, Defendant performs this step.
9	[13b] creating call router resources	performs this step.
10	accessible through a	With reference to TeleSign's Auto Verify product, TeleSign creates call router resources that it makes accessible through its API and
11	call router Application Programming Interface	where the call router resources are accessible by an outside device at an URI. For example, TeleSign makes the Auto Verify product
12	(API), wherein the call router resources are	accessible through its Auto Verify API. See
13	accessible by outside devices at an	https://developer.telesign.com/docs/av-sdk-getting-started. Further, the call router resources are accessible by outside devices at an
14	addressable Uniform Resource Identifier	addressable URI. See https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-verification-status#section-get-status-service . For example,
15	(URI);	TeleSign's Auto Verify API documentation explains the construction of resource URIs. See https://developer.telesign.com/docs/rest api-
16		verify-transaction-callback.
17		By Defendant's operation of its Auto Verify product, Defendant
18		performs this step.
19	[13c] mapping a telephony session to the	With reference to TeleSign's Push Verify product, in addition to
20	URI, the URI being associated with the	creating the call router resource, TeleSign also maps the telephony session to the URI that is associated with the application server, sends
21	application server;	the request to the application server, and embeds state information associated with the telephony session in the request. For example, the
22	sending a request to the	SMS Push API creates at least a reference ID and URI when
23	application server;	communicating with the application server which embeds state information. <i>See</i> https://developer.telesign.com/docs/rest_api-verify-
24	embedding state information of the	transaction-callback, https://developer.telesign.com/v2.0/docs/getting-started-with-the-rest-api#uri-structure. As yet another example, the
25	telephony session in the request;	reference ID that is associated with the application server is sent to the application server. See
26	request,	https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-
27		<u>callback#getstatus</u> .
28	[13d] receiving from	

19

20

21

22

23

24

25

26

27

1	Claim 13	TeleSign's Auto Verify Product
	the application server a	By Defendant's operation of its Auto Verify product, Defendant
2	response comprising	performs this step.
;	telephony instructions for sequential	With reference to TeleSign's Auto Verify product, Auto Verify
'	processing;	receives a response from an application that comprises telephony
4	processing,	instructions for processing. For example, TeleSign's Auto Verify may
5		receive requests related to at least authentication that comprise telephone instructions that are processed sequentially. See
		https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
7		<u>verification-status#section-sending-a-get-request</u> .
3		By Defendant's operation of its Auto Verify product, Defendant
)		performs this step.
)	[13e] receiving an API request from the	With reference to TeleSign's Auto Verify product, Auto Verify
1	application server for interaction with a	receives API requests from applications for interaction with a resource and responds to the API requests based on the interaction with the
2	resource; and	resource. As by way of example, TeleSign's Auto Verify may receive <i>GET</i> and <i>POST</i> requests from an application for interaction with a
3	responding to an API	resource and respond to the request according. <i>See</i> https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
4	request based on the interaction with a	verification-status#section-get-status-service,
5	resource.	https://developer.telesign.com/v2.0/docs/av-sdk-obtaining- verification-status#section-post-callback-service, and
5		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-callback.
7		Carroack.

- 143. Defendant's operation of its Smart Verify product infringes one or more claims of the '021 Patent, including at least Claim 13.
- 144. The Smart Verify product communicates with applications through an application layer protocol, sends messages to applications, and receives and responds to API requests. See https://www.telesign.com/products/smart-verify/.
- 145. Smart Verify uses either the Push Verify or SMS Verify to communicate with applications through an application layer protocol, send messages to applications, and receive and responds to API requests. https://developer.telesign.com/docs/rest api-smart-verify.
- Smart Verify works in the same manner as the above charted products, but bundles Defendant's infringing products (including Push, SMS, and Voice Verify, which charts are incorporated by reference) into a single product.

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	

	147.	Defendant's	infringement	has	caused,	and	is (continuing	to c	eause,	damage	and
irrepai	rable in	jury to Twilio	o, and Twilio	will	continu	e to	suff	er damage	and	irrep	arable i	njury
unless	and un	til that infring	ement is enjoi	ned l	by this C	ourt.						

- 148. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 149. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '021 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 150. Defendant's infringement of the '021 Patent has been and continues to be willful, flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 151. Based on at least Defendant's analysis of Twilio's products, Defendant either knows or should have known about the risk of infringement the '021 Patent.
- 152. Defendant's conduct despite this knowledge is made with a reckless disregard for the infringing nature of their activities.

Count V (Infringement of U.S. Patent No. 8,837,465)

- Twilio incorporates by reference and realleges all the foregoing paragraphs of 153. this Complaint as if fully set forth herein.
- The United States Patent and Trademark Office ("USPTO") duly and legally issued the '465 Patent on September 16, 2014.
- Twilio owns the right, title and interest in the '465 Patent, with full rights to 155. pursue recovery of royalties or damages for infringement.
- 156. Defendant has infringed and continues to infringe one or more claims of the '465 Patent, including at least Claim 1 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Voice Verify.

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

- 157. Defendant's Voice Verify product relates generally to end-user verification and two-factor authentication through voice calls. See https://www.telesign.com/products/voiceverify/.
- 158. Defendant's Voice Verify product processes telephony instructions that includes at least, associating an URI with a telephony endpoint, initiating a telephony session, mapping the URI to the telephony session, sending and receiving requests to and from an application resource, and executing telephony instructions. See https://developer.telesign.com/docs/rest apiverify-call.
- 159. Defendant's operation of its Voice Verify product infringes one or more claims of the '465 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '465 Patent:

of the 405 fatent.						
Claim 1	TeleSign's Voice Verify Product					
[1] A method for processing a telephony communication comprising:	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, Voice Verify processes telephony communications. For example, Voice Verify is used for user verification and two-factor authentication sent over voice messages. See https://www.telesign.com/products/voice-verify/ .					
[1a] associating an initial URI with a telephony endpoint;	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign Voice Verify associates URIs with telephony endpoints. For example, in order to use the Verify Call web service a request must be sent to a particular URI. See https://developer.telesign.com/v2.0/docs/rest_api-verify-call#uri .					
[1b] initiating a telephony voice session for a telephony communication to the telephony endpoint; mapping the initial URI to the telephony session;	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign initiates telephony voice sessions for communications to an end point and maps a particular URI to the telephony session. For example, TeleSign initiates a voice session, such as a voice call, when TeleSign's Voice Verify sends a passcode to telephony endpoint. See					

6

4

11 12

13 14

BAKER BOTTS L.L.P.

15 16

17

18

19

20 21

22

23

24

25

26 27

28

Claim 1 **TeleSign's Voice Verify Product** https://www.telesign.com/products/voice-verify/. Further, TeleSign maps the URI to the telephony session. For example, a request must initially be sent to a particular URI I order to use the web service. See https://developer.telesign.com/v2.0/docs/rest api-verify-call#uri. yet another example, TeleSign creates reference identifiers which uniquely identified each web request. https://developer.telesign.com/v2.0/docs/rest_api-verify-call#requests. By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, Voice Verify sends and receives requests to application resources that are specified [1c] sending an by an URI and also embeds state information in such request. For application layer example, TeleSign's Voice Verify sends an application layer protocol protocol request to an request to an application resource specified by the URI at least by application resource sending a resource URI or subresource to the application. See specified by the URI https://developer.telesign.com/v2.0/docs/rest api-verify-call#requests. and embedding state Further, and as yet another example, in sending the request to the information of the application resource that is specified by the URI, Voice Verify also telephony voice session embeds state information of the telephony session in the request. For in the request; example, and as shown above, Voice Verify embeds state information at least through its reference ID. For example, the reference ID is sent the application. https://developer.telesign.com/v2.0/docs/rest_api-verify-call#requests https://developer.telesign.com/v2.0/docs/rest api-verifyand transaction-callback. By Defendant's operation of its Voice Verify product, Defendant performs this step. [1d] receiving a With reference to TeleSign's Voice Verify product, Voice Verify response to the receives a response to the application layer request that was sent to the application layer application resource, and the response includes a document of protocol request sent to telephony instructions. For example, Voice Verify receives responses the application from applications that include documents of telephony instructions to resource, wherein the verification. least initiate phone a response includes a https://www.telesign.com/products/voice-verify/. For example, the response that includes a document of telephony instructions is an document of telephony instructions; and **XML** document See https://developer.telesign.com/v2.0/docs/rest api-verify-call#uri. yet another example, Voice Verify receives instructions to initiate two-factor authentication through voice a session. https://www.telesign.com/products/voice-verify/. As yet another example, Voice Verify may receive instructions to obtain results of

1	Claim 1	TeleSign's Voice Verify Product
1		such instructions. See
2		https://developer.telesign.com/v2.0/docs/rest_api-verify-call#obtain-
2		verification-resultssend-completion-data.
3		
4		By Defendant's operation of its Voice Verify product, Defendant
5		performs this step.
3		
6		With reference to TeleSign's Voice Verify product, Voice Verify
7	[1e] executing	executes telephony actions during a telephony voice session according to the processing of at least a subset of telephony instructions. For
	telephony actions	example, Voice Verify executes instructions by at least verifying a
8	during the telephony	phone number or initiating the two-factor authentication process that
9	voice session according	are sent over voice messages. See
	to a sequential	https://www.telesign.com/products/voice-verify/. As yet another
10	processing of at least a subset of the telephony	example, TeleSign's Voice Verify may receive <i>GET</i> and <i>POST</i> requests from an application for interaction with a resource and
11	instructions of the	responded to the request according. See
	response.	https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
12		verification-status#section-get-status-service,
13		https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
1.4		verification-status#section-post-callback-service, and
14		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-callback.
15		<u>currouck</u> .
	·	

- 160. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- 161. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 162. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '465 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 163. Defendant's infringement of the '465 Patent has been and continues to be willful, flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary

17

18

19

20

21

22

23

24

25

26

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

support after a reasonable		C C41	:	1:
Support after a reasonable	' Annartiinity	tor tiirtner	investioation	or discovery
support after a reasonable	opportunity	ioi iuitiici	mivestigation	of discovery.
* *	11		_	•

- 164. Based on at least Defendant's analysis of Twilio's products, Defendant either knows or should have known about the risk of infringement the '465 Patent.
- 165. Defendant's conduct despite this knowledge is made with a reckless disregard for the infringing nature of their activities.

Count VI (Infringement of U.S. Patent No. 8,755,376)

- 166. Twilio incorporates by reference and realleges all the foregoing paragraphs of this Complaint as if fully set forth herein.
- The United States Patent and Trademark Office ("USPTO") duly and legally 167. issued the '376 Patent on June 17, 2014.
- 168. Twilio owns the right, title and interest in the '376 Patent, with full rights to pursue recovery of royalties or damages for infringement.
- Defendant has infringed and continues to infringe one or more claims of the '376 169. Patent, including at least Claim 1 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's SMS and Voice Verify.
- 170. Defendant's SMS and Voice Verify products relate generally to end-user verification two-factor authentication See and through voice calls. https://www.telesign.com/products/.
- 171. Defendant's SMS and Voice Verify products may be accessed through a REST API. See https://developer.telesign.com/docs/getting-started-with-the-rest-api.
- 172. Defendant's use the internet and a telephony network in conjunction with a plurality of API resources that comprises at least: initiating a telephony session, communicating with an application server to receive a response, converting the application response into executable operations to process the session, create at least one API resource, and also expose a plurality of API resources through a REST API that comprises receiving and responding to API requests that specify a URI. See https://developer.telesign.com/docs/rest api-verify-call and https://developer.telesign.com/docs/rest_api-verify-sms.

2

3

173. Defendant's operation of its SMS Verify product infringes one or more claims of the '376 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '376 Patent:

4	Claim 1	TeleSign's SMS Verify Product
5	[1] A method comprising:	See below for elements.
6		By Defendant's operation of its SMS Verify product, Defendant performs this step.
7	[1a] operating a	performs this step.
8	telephony network and internet connected	With reference to TeleSign's SMS Verify product, TeleSign operates a telephony network and internet connected system with a plurality of
9	system cooperatively with a plurality of	API resources. For example, For example, TeleSign is a TeleSign is a Mobile Network Operator MNO and has relations with
10	application	telecommunication operators. As an MNO, TeleSign operates a
11	programming Interface (API) resources, wherein operating the	telephony network and internet system. See https://www.telesign.com/products/ . Further, TeleSign system operates cooperatively with a plurality of API resources. As by way of
12 13	system comprises:	example, TeleSign uses an API to operate its network that include resources. See https://developer.telesign.com/docs/getting-started-
14		with-the-rest-api.
15		
16		By Defendant's operation of its SMS Verify product, Defendant performs this step.
17	[1b] initiating a	With reference to TeleSign's SMS Verify product, TeleSign initiates
18	telephony session,	telephony sessions. For example, TeleSign initiates telephony sessions at least when TeleSign's SMS Verify sends a passcode to
19		telephony endpoint. <i>See</i> https://www.telesign.com/products/sms-verify/ .
20		
21	[1c] communicating	By Defendant's operation of its SMS Verify product, Defendant
22	with an application server to receive an	performs this step.
23	application response, converting the	With reference to TeleSign's SMS Verify product, TeleSign communicates with application servers to receive responses, converts
24	application response into executable	the responses into executable operations to process a telephony session, and creates at least one information API resource. For
25	operations to process the telephony session,	example, SMS Verify sends and receives requests from applications.
26	creating at least one informational API	See https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#requests . Further, TeleSign converts the applications responses
27	resource; and	into executable operations to process a telephone session. For example, in communication with an application TeleSign's SMS
28		Verify receives responses from the application that require SMS

TeleSign's SMS Verify Product
Verify to convert the response into executable operations to process telephony sessions. For example, SMS Verify receives responses to
initiate a telephony session through verification or two-factor authentication. <i>See</i> https://www.telesign.com/products/sms-verify/ .
Further, TeleSign creates at least one information API resource in operating its system. For example, an API resource is created by
TeleSign at least when TeleSign's Voice Verify receives an
application response. See https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#responses .
By Defendant's operation of its SMS Verify product, Defendant performs this step.
With reference to TeleSign's SMS Verify product, TeleSign exposes a
plurality of API resources through a REST API. For example, TeleSign implements a REST API that exposes a number of API
resources. <i>See</i> <u>https://developer.telesign.com/docs/getting-started-</u> with-the-rest-api.
By Defendant's operation of its SMS Verify product, Defendant
performs this step.
With reference to TeleSign's SMS Verify product, SMS Verify receives and responds to API requests that specify a resource URI.
For example, For example, SMS Verify receives requests from applications that include instructions to at least initiate a phone
verification that specifies an API resource URI. See https://www.telesign.com/products/sms-verify/ . As yet another
example, SMS Verify receives requests to initiate two-factor authentication through a message session that includes resource URIs.
See https://www.telesign.com/products/sms-verify/ . As yet another example, SMS Verify may receive instructions to obtain results of
such instructions which include resource URIs. See
https://developer.telesign.com/v2.0/docs/rest_api-verify-sms#obtain-verification-resultssend-completion-data. As yet another example,
SMS Verify responds to the API request according the request and the specified URI. For example, SMS Verify responds by at least
verifying a phone number or initiating the two-factor authentication
process that are sent via SMS messages. <i>See</i> https://www.telesign.com/products/SMS-verify/ . As yet another
example, TeleSign's SMS Verify may receive <i>GET</i> and <i>POST</i> requests that specify an URI and respond to the request accordingly.
See https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
verification-status#section-get-status-service,

Claim 1	TeleSign's SMS Verify Product
	verification-status#section-post-callback-service, and
	https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-
	<u>callback</u> .

174. Defendant's operation of its Voice Verify product infringes one or more claims of the '376 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '376 Patent:

Claim 1	TeleSign's Voice Verify Product
[1] A method	
comprising:	See below for elements.
[1a] operating a telephony network and internet connected system cooperatively with a plurality of application programming Interface (API) resources, wherein operating the system comprises:	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign operates a telephony network and internet connected system with a plurality of API resources. For example, For example, TeleSign is a TeleSign is a Mobile Network Operator MNO and has relations with telecommunication operators. As an MNO, TeleSign operates a telephony network and internet system. See https://www.telesign.com/products/ . Further, TeleSign system operates cooperatively with a plurality of API resources. As by way of example, TeleSign uses an API to operate its network that include resources. See https://developer.telesign.com/docs/getting-started-with-the-rest-api .
[1b] initiating a telephony session,	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign initiates telephony sessions. For example, TeleSign initiates telephony sessions at least when TeleSign's SMS Verify sends a passcode to telephony endpoint. See https://www.telesign.com/products/voice-verify/ .
[1c] communicating with an application server to receive an application response, converting the application response into executable operations to process	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign communicates with application servers to receive responses, converts the responses into executable operations to process a telephony session, and creates at least one information API resource. For

	Claim 1	TeleSign's Voice Verify Product
1	the telephony session,	example, Voice Verify sends and receives requests from applications.
2	creating at least one	See https://developer.telesign.com/v2.0/docs/rest_api-verify-
	informational API	<u>call#requests</u> . Further, TeleSign converts the applications responses
3	resource; and	into executable operations to process a telephone session. For example, in communication with an application TeleSign's Voice
4		Verify receives responses from the application that require Voice Verify to convert the response into executable operations to process
5 6		telephony sessions. For example, Voice Verify receives responses to initiate a telephony session through verification or two-factor
7		authentication. See https://www.telesign.com/products/voice-verify/ . Further, TeleSign creates at least one information API resource in
8		operating its system. For example, an API resource is created by TeleSign at least when TeleSign's Voice Verify receives an
9		application response. See https://developer.telesign.com/v2.0/docs/rest_api-verify-
10		<u>call#responses</u> .
11		
12	[1d] exposing the plurality of API	By Defendant's operation of its Voice Verify product, Defendant performs this step.
13	resources through a	With reference to TeleSign's Voice Verify product, TeleSign exposes
14	representational state transfer (REST) API that comprises:	a plurality of API resources through a REST API. For example, TeleSign implements a REST API that exposes a number of API
15		resources. See https://developer.telesign.com/docs/getting-started-with-the-rest-api .
16		
17 18		By Defendant's operation of its Voice Verify product, Defendant performs this step.
19		With reference to TeleSign's Voice Verify product, Voice Verify
20	[1e] receiving a REST	receives and responds to API requests that specify a resource URI. For example, For example, Voice Verify receives requests from
21	API request that specifies an API	applications that include instructions to at least initiate a phone verification that specifies an API resource URI. See
22	resource URI, and	https://www.telesign.com/products/voice-verify/. As yet another
23	responding to the API request according to the request and the specified resource URI.	example, Voice Verify receives requests to initiate two-factor authentication through a voice session that includes resource URIs.
24		See https://www.telesign.com/products/voice-verify/ . As yet another example, Voice Verify may receive instructions to obtain results of
25		such instructions which include resource URIs. <i>See</i> https://developer.telesign.com/v2.0/docs/rest_api-verify-call#obtain-
26		verification-resultssend-completion-data. As yet another example, Voice Verify responds to the API request according the request and
27		the specified URI. For example, Voice Verify responds by at least verifying a phone number or initiating the two-factor authentication
28	COMDI AINT EOD DATENT	remying a phone number of initiating the two-factor authentication

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

1	Claim 1	TeleSign's Voice Verify Product
1		process that are sent over voice messages. See
2		https://www.telesign.com/products/voice-verify/. As yet another
		example, TeleSign's Voice Verify may receive GET and POST
3		requests that specify an URI and respond to the request accordingly.
4		See https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
4		verification-status#section-get-status-service,
5		https://developer.telesign.com/v2.0/docs/av-sdk-obtaining-
		verification-status#section-post-callback-service, and
6		https://developer.telesign.com/v2.0/docs/rest_api-verify-transaction-
_		<u>callback</u> .
7		

- 175. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- 176. Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 177. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '376 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P52 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 178. Defendant's infringement of the '376 Patent has been and continues to be willful, flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P52 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 179. Based on at least Defendant's analysis of Twilio's products, Defendant either knows or should have known about the risk of infringement the '376 Patent.
- 180. Defendant's conduct despite this knowledge is made with a reckless disregard for the infringing nature of their activities.

Count VII (Infringement of U.S. Patent No. 9,226,217)

- 181. Twilio incorporates by reference and realleges all the foregoing paragraphs of this Complaint as if fully set forth herein.
 - 182. The United States Patent and Trademark Office ("USPTO") duly and legally

issued the '217 Patent on December 29, 2015.

2

1

3

5

6

7

4

8 9

10 11

12 13

14

16

15

17 18

19

27

28

183. Twilio owns the right, title and interest in the '217 Patent, with full rights to pursue recovery of royalties or damages for infringement.

- Defendant has infringed and continues to infringe one or more claims of the '217 184. Patent, including at least Claim 15 by advertising, distributing, making, using, selling and offering for sale within the United States and importing into the United States related software and related services, including but not limited to Defendant's Voice Verify.
- Defendant's Smart Verify, SMS Verify, and Voice Verify products relates 185. generally to end-user verification and two-factor authentication through voice calls. See https://www.telesign.com/products/voice-verify/.
- 186. Defendant's Smart Verify, SMS Verify, and Voice Verify receive communication requests that specify destinations.
- 187. Defendant's determining appropriate routing addresses when using its web services, such as Smart Verify, SMS Verify, and Voice Verify.
- 188. Defendant's select communication providers when using its web services, such as Smart Verify, SMS Verify, and Voice Verify.
- 189. Defendant's operation of its Smart Verify, SMS Verify, and Voice Verify products infringe one or more claims of the '217 Patent. As an example of one theory of infringement and with reference to Claim 15 of the '217 Patent:

Claim 15	TeleSign's SMS Verify Product
[15] A method	See below for elements.
comprising	
[15a] at a multi-tenant	
communication	By Defendant's operation of its SMS Verify product, Defendant
platform, and	performs this step.
responsive to	
authentication of a	With reference to TeleSign's SMS Verify product, TeleSign uses a
communication request	multi-tenant communication, which authorizes communication
provided by an external	requests provided by an external system, wherein the communication
system, the	request specifies a communication destination and account
communication request	information. For example, the SMS Verify API serves multiple
specifying a	customers. See https://www.telesign.com/products/sms-verify/ .
communication	Further, SMS Verify authorizes communication requests. For
destination and account	example, to access TeleSign a user requests authorization. See

Claim 15	TeleSign's SMS Verify Product
information:	https://developer.telesign.com/v2.0/docs/authentication-1. Further, the communication request specifies a destination and account information. For example, SMS Verify receives request that includes
	at least telephone numbers. https://developer.telesign.com/v2.0/docs/rest_api-verify-
	sms#requests. As yet another example, account information can include a form authentication, an account identifier, or any suitable
	source of information. TeleSign's SMS Verify must first authorize use of its service. See https://developer.telesign.com/v2.0/docs/authentication-1 .
	By Defendant's operation of its SMS Verify product, Defendant performs this step.
[15b] determining a	With reference to TeleSign's SMS Verify product, TeleSign
routing address record of the communication	determines a routing address record of the communication platform
platform that matches the communication	that matches the destination of the communication request, where the matching routing address record associates the communication
destination of the communication request,	destination with a plurality of external provides. For example, when TeleSign receives requests to transmit messages TeleSign transmits
the matching routing address record	messages through a routing options that match the destination of the communication request. <i>See https://www.telesign.com/products/</i> . For
associating the communication	example, TeleSign may transmit messages through a network or a carrier to reach the correct destination. See
destination with a plurality of external	https://www.telesign.com/products/sms-verify/. As yet another example, TeleSign is a Mobile Network Operator (MNO). <i>See</i> https://www.telesign.com/products/. For example, TeleSign is a MNO
communication providers;	and has relations with telecommunication operators that permit TeleSign to use multiple different routing and communication
	providers to reach the correct matching destination. <i>See</i> https://www.telesign.com/products/ .
	By Defendant's operation of its SMS Verify product, Defendant performs this step.
[15c] selecting at least one communication	With reference to TeleSign's SMS Verify product, TeleSign selects at
provider associated with the matching	least one communication provider associated with the matching routing address record. For example, and as stated in the previous
routing address record;	element, TeleSign is a Mobile Network Operator that has relations with telecommunication providers that permit TeleSign to use
	multiple routing addresses to reach the correct matching destination.
	See https://www.telesign.com/products/ .
[15d] providing a	

1	Claim 15	TeleSign's SMS Verify Product
1	communication with	performs this step.
2	the communication	
	destination to each	With reference to TeleSign's SMS Verify product, TeleSign provides
3	selected	a request to establish communication with the communication
,	communication	destination to each selected communication provider. For example,
4	provider.	and as stated in the previous two elements, TeleSign is a Mobile
5		Network Operator that has relations with telecommunications
		providers. See https://www.telesign.com/products/ . Further, TeleSign
6		provides requests to establish communications with the
7		communication destination in order to complete the request that was initially send to the SMS Verify API. For example, TeleSign provides
′		a request to establish the communication upon receiving a request for
8		SMS Verify to initiate two-factor authentication. See
		https://www.telesign.com/products/sms-verify/.
9		inception with the control production stills verify.

Defendant's operation of its Voice Verify product infringes one or more claims 190. of the '217 Patent. As an example of one theory of infringement and with reference to Claim 1 of the '217 Patent:

Claim 15	TeleSign's Voice Verify Product
[15] A method comprising	See below for elements.
[15a] at a multi-tenant communication platform, and responsive to authentication of a communication request provided by an external system, the communication request specifying a communication destination and account information:	By Defendant's operation of its Voice Verify product, Defendant performs this step. With reference to TeleSign's Voice Verify product, TeleSign uses a multi-tenant communication, which authorizes communication requests provided by an external system, wherein the communication request specifies a communication destination and account information. For example, the Voice Verify API serves multiple customers. See https://www.telesign.com/products/voice-verify/ . Further, SMS Verify authorizes communication requests. For example, to access TeleSign a user requests authorization. See https://developer.telesign.com/v2.0/docs/authentication-1 . Further, the communication request specifies a destination and account information. For example, SMS Verify receives request that includes at least telephone numbers. https://developer.telesign.com/v2.0/docs/rest_api-verify-call#requests . As yet another example, account information can include a form authentication, an account identifier, or any suitable source of information. TeleSign's Voice Verify must first authorize use of its service. See https://developer.telesign.com/v2.0/docs/authentication-1 .
[15b] determining a	By Defendant's operation of its Voice Verify product, Defendant

	Claim 15	TalaCinus a Varian Varian Dundund
1	Claim 15 routing address record	TeleSign's Voice Verify Product performs this step.
2	of the communication	
3	platform that matches the communication	With reference to TeleSign's Voice Verify product, TeleSign determines a routing address record of the communication platform
3	destination of the	that matches the destination of the communication request, where the
4	communication request,	matching routing address record associates the communication
5	the matching routing address record	destination with a plurality of external provides. For example, when TeleSign receives requests to transmit messages TeleSign transmits
6	associating the	messages through a routing options that match the destination of the
7	communication destination with a	communication request. https://www.telesign.com/products/ . For example, TeleSign may transmit messages through a network or a
8	plurality of external communication	carrier to reach the correct destination. https://www.telesign.com/products/voice-verify/ . As yet another
9	providers;	example, TeleSign is a Mobile Network Operator (MNO). See
10		https://www.telesign.com/products/. For example, TeleSign is a MNO and has relations with telecommunication operators that permit
11		TeleSign to use multiple different routing and communication providers to reach the correct matching destination. See
12		https://www.telesign.com/products/.
13		
14		By Defendant's operation of its Voice Verify product, Defendant performs this step.
15	[15c] selecting at least	
16	one communication provider associated	With reference to TeleSign's Voice Verify product, TeleSign selects at least one communication provider associated with the matching
17	with the matching routing address record;	routing address record. For example, and as stated in the previous element, TeleSign is a Mobile Network Operator that has relations
18	and	with telecommunication providers that permit TeleSign to use multiple routing addresses to reach the correct matching destination.
		See https://www.telesign.com/products/.
19		
20		By Defendant's operation of its Voice Verify product, Defendant
21	[15d] providing a	performs this step.
22	request to establish communication with	With reference to TeleSign's Voice Verify product, TeleSign provides a request to establish communication with the communication
23	the communication	destination to each selected communication provider. For example,
24	destination to each selected	and as stated in the previous two elements, TeleSign is a Mobile Network Operator that has relations with telecommunications
25	communication provider.	providers. See https://www.telesign.com/products/ . Further, TeleSign provides requests to establish communications with the
26	provider.	communication destination in order to complete the request that was
27		initially send to the Voice Verify API. For example, TeleSign provides a request to establish the communication upon receiving a
28		request for Voice Verify to initiate two-factor authentication. See
	COMPLAINT FOR PATENT	

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

Claim 15	TeleSign's Voice Verify Product
	https://www.telesign.com/products/sms-verify/

- 191. Defendant's operation of its Smart Verify product infringes one or more claims of the '217 Patent, including at least Claim 15.
- The Smart Verify product uses either SMS Verify or Push Verify to perform the 192. elements listed above. See https://www.telesign.com/products/smart-verify/.
- 193. Smart Verify works in the same manner as the above charted products, but includes multiple products in one.
- 194. Defendant's infringement has caused, and is continuing to cause, damage and irreparable injury to Twilio, and Twilio will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court.
- Twilio is entitled to injunctive relief and damages in accordance with 35 U.S.C. §§ 271, 281, 283, and 284.
- 196. Based on Defendant's behavior and analysis of Twilio's products, Defendant became aware of the '217 Patent, for example, at least during its diligence in filing suit against Twilio. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 197. Defendant's infringement of the '217 Patent has been and continues to be willful, flagrant, wanton, and deliberate, justifying a trebling of damages under 35 U.S.C. § 284. See, for example, $\P 52 - 71$. The evidence tending to support this allegation will likely have evidentiary support after a reasonable opportunity for further investigation or discovery.
- 198. Based on at least Defendant's analysis of Twilio's products, Defendant either knows or should have known about the risk of infringement the '271 Patent.
- Defendant's conduct despite this knowledge is made with a reckless disregard for 199. the infringing nature of their activities.

Prayer for Relief

200. Twilio demands trial by jury for all issues so triable by a jury.

WHEREFORE, Twilio respectfully requests:

1	a. Judgment be entered that Defendant has infringed each of the Asserted
2	Patents;
3	b. Judgment be entered that Defendant has willfully infringed and is willfully
4	infringing one or more claims of the Asserted Patents;
5	c. That, in according with 35 U.S.C. § 283, Defendant be permanently enjoined
6	from infringing each of the Asserted Patents;
7	d. That Defendant recall and destroy any products incorporating the patented
8	technology;
9	e. An award of damages sufficient to compensate Twilio for Defendant's direct
10	infringement of each of the Asserted Patents, including lost profits suffered
11	by Twilio as a result of Defendant's infringement in an amount not less than a
12	reasonably royalty;
13	f. An award of damages based on Twilio's provisional rights under 35 U.S.C. §
14	154(d).
15	g. An order awarding Twilio treble damages under 35 U.S.C. § 284 as a result of
16	Defendant's willful and deliberate infringement of each of the Asserted
17	Patents;
18	h. That the case be found exceptional under 35 U.S.C. § 285 and that Twilio be
19	awarded its attorney's fees.
20	i. Costs and expenses in this action;
21	j. An award of prejudgment and post-judgment interest, including supplemental
22	damages for any continuing post-verdict or post-judgment infringement with
23	an accounting as needed; and
24	k. Such other and further relief as the Court may deem just and proper under the
25	circumstances.
26	
27	
28	
	COMPLAINT FOR PATENT

BAKER BOTTS L.L.P.